



# **APPENDIX**

A. Plant Palette4
B. 2018 Design Alternative Online Polling Results8
C. 2018 Design Alternative Online Comments15
D. Transportation Existing Conditions and Analysis48
E. Transportation Level of Service Analysis52
F. Memo: Potential Centennial Parkway Realignment5

 $\mathbf{2}$ 



# A. Plant Palette

A list of recommended species to add vibrancy and cohesiveness to the corridor.

# Overall Plant Pallette - Trees



Shumard Oak Quercus shumardii



Loblolly Pine *Pinus taeda* 



Trident Maple
Acer buergerianum



Tulip Poplar *Lirodendron tulipifera* 



Carolina Silverbell Halesia carolina



Serviceberry Amelanchier canadensis



Washington Hawthorne *Crataegus phaenopyrum* 



Redbud *Cercis canadensis* 

# Overall Plant Pallette - Shrubs and Groundcovers



Sweetspire *Itea virginica* 



Blood Twig Dogwood Cornus Sanguinea



Blue False Indigo *Baptisia australis* 



Switchgrass

Panicum vergatum

(multiple varieties/cultivars)



Vibernum spp. (multiple varieties/cultivars)



Box-leafed Holly ilex crenata



Mountain Mint

Pycnanthemum muticum



Pennsylvania Sedge Carex pennsylvanica



# BioretentionPlant Pallette - Trees



Swamp White Oak Quercus bicolor



Black Gum Nyssa sylvatica



Bald Cypress Taxodium distchum



Ironwood Carpinus caroliniana



Fringe Tree *Chionanthus virginicus* 



Witch Hazel Hamamelis virginiana

# BioretentionPlant Pallette - Shrubs and Groundcovers



Beautyberrry Callicarpa americana



Buttonbush Cephalanthus occidentalis



Sweet Pepperbush Clethra alnifolia



Blue Flag Iris Iris virginica





Blue Cardinal Flower Lobelia siphilitica



Fringed Sedge Carex crinita



Inkberry *Ilex glabra* 



Mountain Mint

Pycnanthemum muticum



Tussock Sedge Carex stricta



Creek Sedge Carex amphibola



# B. Design Alternatives Survey & Results



Please complete the following survey and leave this paper with a City staff member. A space is provided at the end for comments. Survey is also available online at www.publicinput.com/2566.

### **Catalyst Sites**

### A. Mission Valley Shopping Center

1. Which height option do you prefer for buildings at the Mission Valley

**Shopping Center?** 

☐ Less than 5 stories

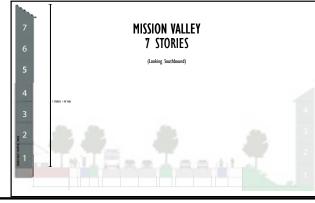
☐ 5 stories

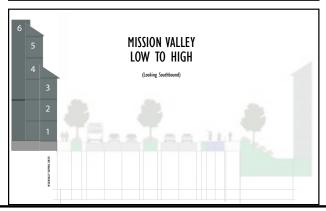
□ Tapered from 3 to 6

□ 7 stories

■ More than 7 stories





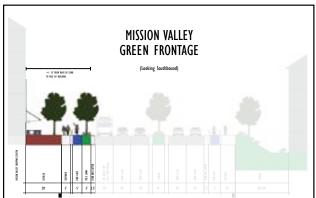


2. Which frontage (setback) do you prefer for any new buildings at the Mission Valley Shopping Center?

☐ Green - Building farther from street, with landscaping

☐ Urban - Building closer to street





# Results:

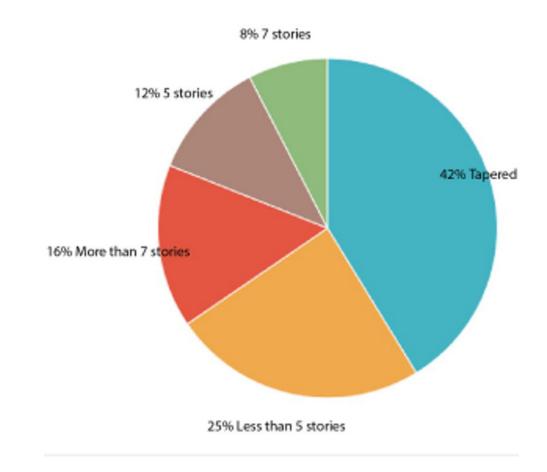
41% Tapered from 3 to 7

24 % Less than 5 Stories

16% More than 7 stories

11% 5 Stories

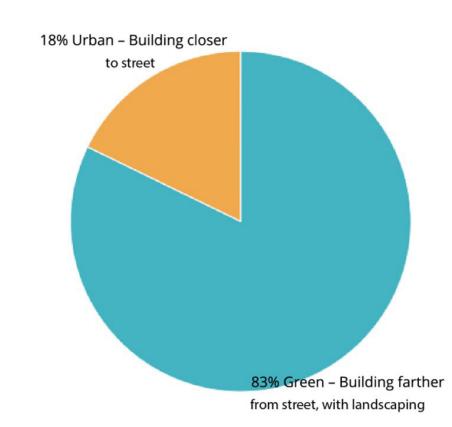
8% 7 Stories



## Results:

82% Green frontage

18% Urban Frontage





# **Catalyst Sites**

# B. Gorman Street Shopping Center

1. Which height option do you prefer for the shopping center at Avent Ferry

Road and Gorman Street?

■ 3 stories

■ 4 stories

□ Tapered from 3-5 stories

■ 5 stories

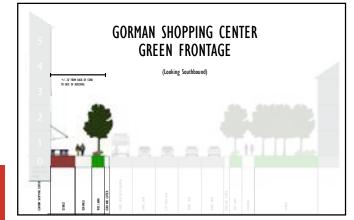
■ More than 5 stories







- 2. Which frontage (setback) do you prefer for the shopping center at Avent Ferry Road and Gorman Street?
- ☐ Green Building farther from street, with landscaping
- ☐ Urban Building closer to street





# Results:

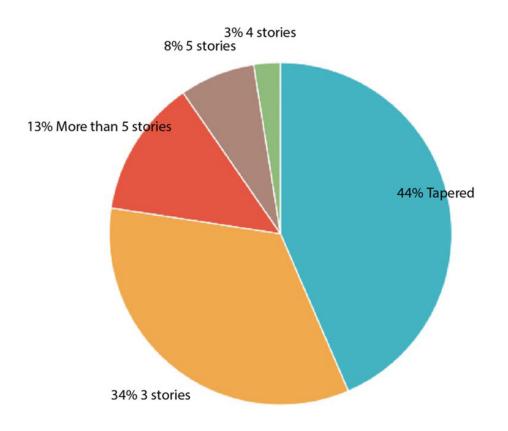
41% Tapered from 3 to 5

33% 3 Stories

3% More than 5 stories

7% 5 Stories

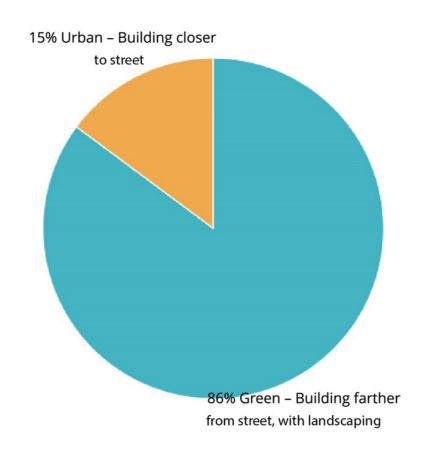
3% 4 Stories



# Results:

85% Green frontage

15% Urban frontage

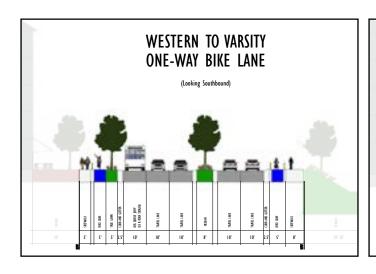


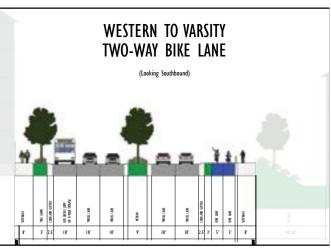


### **Street Sections**

### C. Western to Varsity

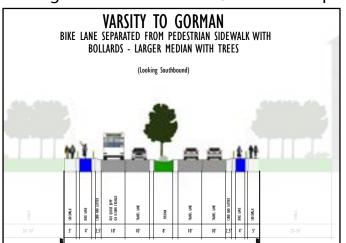
- 1. For the segment from Western Boulevard to Varsity Drive, which street section do you prefer?
- ☐ One-way bike lane on each side
- ☐ Two-way bike lane, on Southbound side

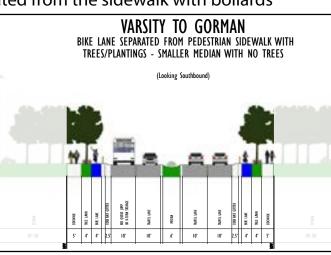




## D. Varsity to Gorman

- 1. For the segment from Varsity Drive to Gorman Street, what street section do you prefer?
- ☐ Smaller median / Bike lane separated from the sidewalk with planting strip
- ☐ Larger median with trees / Bike lane separated from the sidewalk with bollards

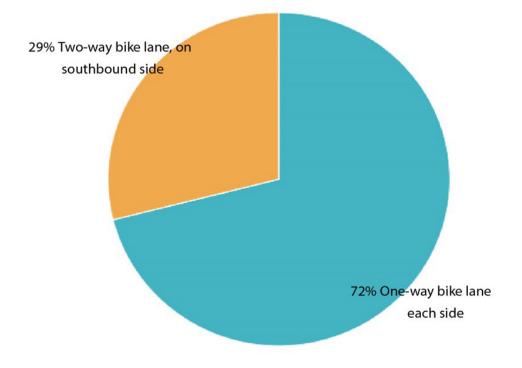




# Results:

71% One-way bike lane

29% Two-way bike lane



# Results:

62% Smaller median

39% Larger median with trees / Bike lane separated from the sidewalk with

8% Larger planted median from the sidewall bollards

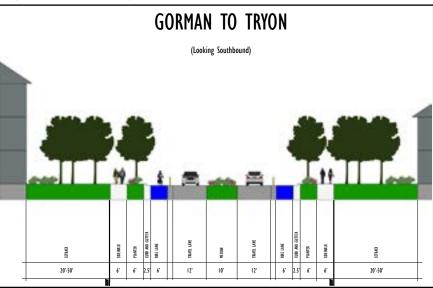
62% Smaller median / Bike lane separated from the sidewalk with tree planting strip



#### **Street Sections**

# E. Gorman to Tryon

1. Please tell us any comments you have about this street section.



# C. Design Alternatives Survey Online Comments

# Question 1 - Mission Valley Height comments

This is the perfect place for very intense uses and taller buildings: Fantastic transit (including the future BRT), and across the street from campus. 12 stories, maybe even more, could work here.

I also think this district should extend further south - down to Varisty rather than Centennial Parkway. There is a lotof foot traffic at the intersection of Avent Ferry & Varsity, from people going to and from Centennial Campus. This intersection should be surrounded on all four corners with mid rise (5 story) buildings with ground level retail.

I like green space and trees. The tall buildings in Cameron Village has destroyed Cameron Village. Do we really need to shove in more over-priced apartments and condos?

If building more than 3 stories, put parking beneath the residential buildings otherwise it will be too congested.

I like my sunlight and trees. We don't need more tall buildings around to shade our natural areas. Speaking of which, Mission Valley needs some green space.

The Mission Valley shopping center falls outside of the downtown city center (110 block area) where towers are being constructed. Towers make sense in the downtown area. Mission Valley is a transition area, more of a neighborhood center. As a neighborhood center 5 stories or less seems more suitable.

The trend towards turning areas into large monolithic blocks of many stories (cameron village, parts of glenwood south, north hills, etc.) just ruins the vistas, eliminates the 'human scale' and makes pedestrians feel caged and hemmed in.

Mission Valley does need some greenspace and better walk corridors. Also, if the building abut Avent Ferry then it could create safety issues during inclement weather when the sidewalks are shaded.

This area is a great location for dense development with current and future transit plans. Pedestrian traffic patterns are already intense which makes for walkable living. The concern for shading is offset by the large natural area of Lake Johnson at the end of Avent Ferry.

If you have to walk across Western Blvd as it is now, any option is a waste of time.

Does that mean an elevated pedestrian bridge would work?

I think any building should not be over 3 stories high. We need plenty of green space and safe travel for pedestrians and cyclist. No more apartments and condo's. We need sunlight!! Hillsborough Street and Cameron Village no longer have charm or sun. Please protect Avent Ferry Road from the congested nightmare.

#### 11/2/2018

This area should be densely developed (i.e. with tall buildings) because of its proximity to campus and downtown Raleigh. Let's maximize the use of this space and make it better than it is now! It already has good transit and foot traffic and some smarter development could make it more successful.



Max 3 stories. traffic would be to heavy is any more than 3 stories

No taller than Jordan Hall or exsisting apartments across the street. Seems the cathedral should stand prominently above the rest of the area.

If building heights create a 7 story wall adjacent to the Avent Ferry, with buildings oriented alongside the road, the sun from the east will be blocked most of the morning and afternoon all months of the year. Tapered buildings will at least allow some sunlight to spill over onto the east side of the roadway and not create a "dark side of the road."

http://suncalc.net/#/35.7799,-78.6762,19/2018.09.14/14:20

The setback above the 3 stories should be a minimum of 30' with a preference of outdoor living space or roof gardens on top of the 3 story portion.

Because of the way it is situated on the land it can get away with being 5-6 stories without hitting you in the face and blocking line of sight. The tapered aspect helps this also as well as looking more in keeping with the surroundings.

The intersection of Avent Ferry and Western Blvd is what causes so much traffic for cars coming in and out of Mission Valley. Pedestrian walkways above the street line would facilitate safer and more efficient traffic at Western and Centennial intersections. I can't imagine Mission Valley growing any larger without addressing existing flow.

This is the capital city of one of the biggest states in the country. We need to stop limiting height. We have an entire state full of small towns. Raleigh shouldn't be one.

Mission valley is a dated shopping center that could be redeveloped to combine sopping and living like North Hills and Camron Village.

The visual from the street level should be 3 stories or less - because Mission Valley is a valley, it would be possible to have more stories at grade that appeared to be no more than 3 stories from Avent Ferry Rd.

plenty of density to be had with 5 stories without all the negative impacts of towers.

#### 11/2/2018

Very concerned what this would mean for existing business in this area - raining their overhead could mean loss of these small businesses. I haven't seen any input from owners of the Mission Valley Cinema, Cloo's or the Halaal Market.

higher than 5 stories creates a wind tunnel and canyon

The topography should be used to allow up to 7 stories at the Centennial Parkway Corner. There should be height, tapered back from the ROW at Western Blvd. The Western Corner should be integrated into the overall site and a focal point. Jordan Hall across the street is relatively tall. As is Advent Ferry Dorm, and the Mission Valley Apartments. Currently Mission Valley's retail component is undersized compared to all of it's neighbors. To get significant mass to become a destination center the property needs to go vertical.

I really don't think it's appropriate for this shopping center to be focused on pedestrians. It is in a high commute area that will ALWAYS have tons of car traffic. The more we can do to reduce pedestrians running in the roads here, the better.

The Mission Valley area is too congested now. With more, higher buildings, it would be much worse.

IMO it is congested because of longer-distance commuters who drive through the area, not because of any destinations right at Mission Valley. Leave Mission Valley as-is, and the congestion will still increase because everything that could get built there, will have to go farther out. If you put a large activity center (like North Hills, or Cameron Village) with a pedestrian focus at Mission Valley (with the tunnel to NCSU) a lot of people will walk and use transit instead of drive.

#### Max 3 stories

I reside in the MV Garden apartment building, so I am reluctant to advocate for increased development if it means introducing an expense to myself or other residents in the long run. I am not interested in seeing too many more apartments and businesses stacked on top of each other, especially at heights greater than 3 or 4 stories. I am also apprehensive about how changes in pedestrian and vehicle traffic will influence noise and congestion on an already

busy section of road. Even so, I agree more can be done to improve the aesthetics of the shopping center and maximize the space. A few new businesses, restaurants, and a grocery store would make it more appealing. When development does get under way, please consider limiting the building sizes to <5 stories, introducing green areas, and improving parking areas.

As long as there is significant parking infrastructure and roadway density flow improvements for the mission valley area, then a tapered 3 to 7 (not in all areas) would be a nice way to improve the existing use of the whole center (for places to live and for nicer restaurants in the area) without compromising surrounding views too much. The whole thing is more huge parking lot than enjoyable green space as it is now anyways.

We're paying a lot for the BRT system - so let's get a return on that investment by making it serve and connect as many homes, shops, and other destinations as possible. Transit without density is destined to be resented and a burden.

You could Mixed-use buildings. Residential and Commercial

Parking and access to Avent Ferry north and south would need to be carefully considered, even with 5 story buildings. It's tremendously challenging to turn east into the shopping area or north from the opposite side of the street.

This is an ideal location for additional density. Developing to at least seven stories creates the best opportunity to capitalize on our transit investments. This is a commercial area within walking distance of a number of multifamily developments and two NC State campuses. Combining additional density with transit connections provides the best opportunity to create a livable, sustainable place.

I like green space and trees, so I like taller buildings. Taller buildings have a smaller footprint for the square footage, so that leaves more area for greenery. Good point that adequate parking will need to be considered too.

Tapered low (3-4) to high (7+) from Western to Centennial, so as to maintain the eastbound view into the city and not to make Western feel too crowded. Appropriate set backs from Avent Ferry to preserve some happy green space between buildings and sidewalks, bike paths, and street, as well as avoid too much morning shading which would cause significant icing issues in Winter. Pedestrian (& bike?) bridge over Avent Ferry and ideally pedestrian and bike tunnel/underpass under Western would have tremendous positive impacts on traffic and safety. We have a once in a lifetime opportunity to make a true "front door" to Downtown Raleigh from the West.

Go for North Hills style multi-use development.

Having lived on the Tryon Road end of Avent Ferry Road for nearly 17 years, taller buildings mean more traffic. If there is to be mixed use of



residential and commercial buildings placed on the small amount of land, I feel that the already overwhelming traffic will create an even more dangerous driving condition and safety hazards for pedestrians.

Parking needs to be shielded from the street...and it would be nice to include some green space in the design of the area.

More stories makes me worry about parking issues.

7+

scaling it back puts it more into scale for a pedestrian approaching and sitting outside, it also blocks less sun and light

Max 3 stories

More density means more affordable apartments and a greater focus on pedestrian/bike access. Right now the center is dominated by parking lots that aren't doing much for the people who live within walking distance.

There should be an appropriate amount of density from the start, looking forward to mobility and future population needs of the area.

Tapered will allow light in. The denser and taller construction is perfect for the upcoming rapid bus corridor on Western. Also, the need for a parking garage should be added, as well as redeveloping between Centennial Parkway and Varsity on the Centennial Campus border.

I agree with those who feel buildings should be 5 stories or less. I would not want to see the geography of this area change too drastically from what it is now.

These giant buildings with condos are unattractive. Let's take the opportunity to make mission valley a nice place to congregate and shop.

More appealing architectural perspective

I don't think every building in this area needs to be more than seven stories but I think the highest and best use of the properties right along Avent Ferry should be above 7. In fact, this property doesn't border existing single family neighborhoods so I don't see the need to taper down toward the back. A variety building heights will definitely produce a more organic looking and feeling development pattern. But I don't see the need to be so specific about heights from front to back.

Prefer focus on high quality human-scale, safe, delightful streetscape experience, and a green space system around which buildings are arranged.

The tapered profile creates a much more pedestrian friendly profile that is also more pleasing to from a driver's perspective.

Adding taller buildings for housing would work well here. More density of housing would help the area.

Or tapered less than 5 stories. If you use the terrain it could have a total of 6 or 7 but only appear to have 4-5, which would roughly match the buildings diagonally at NCSU.

It seems like green space is a key factor for a lot of participants. Perhaps as part of approving additional scale, accommodations would be required for creating green space and public outdoor amenities.

Re traffic: I suspect that the additional trips for 7 story residential would be negligible compared to the commuter traffic on Western Blvd and Centennial Campus, and more office and residential will be key for increasing walkability.

If you put enough customers within walking distance of the stores/restaurants on the bottom floors, you don't need as much parking. This looks great.

This is a good site for both retail and residential development. I think any residential on the corridor east of Gorman St should have reduced parking requirements, since there's a very high level of transit service. This will allow there to be more units (and thus lower rents) while not generating as much traffic.

Perfect location for high density! Right along one of the major public transportation corridors. Let's do it!

We don't want Mission Valley to turn into another Cameron Village....

The higher the building the wider the sidewalk needed, with space for business use (dining, etc.)

7+ (not tapered) allows for wider sidewalks, accommodates businesses, restaurants, and retail, with residential above. MV area is the prime area for increasing residential density as its is no surprise that most residents along the corridor commute towards MV along AF (morning) -- whether to DTR or NCSU. Providing more residential opportunities are MV will relieve a large amount of traffic along AF.

A pay lot for parking would also be useful in this area especially if retail density increases.

I like the idea of high density housing/development. This area of campus continues to need housing and healthier food options. I think apartments mixed with some retail would make this area more attractive and spur economic activity.

As many others have commented, I also share the concern that creating buildings greater than 5 stories tall would limit the amount of green space available to members of the community. Research shows that availability and exposure of green space correlates with better mental health outcomes, stress reduction, a sense of cohesion in neighborhoods, a reduction in crime, and better subjective health (Beyer, Kaltenbach, Szabo, Bogar, Nieto, & Malecki, 2014). Please consider this when deciding how to modernize the Mission Valley Shopping center as well as the Gorman Street shopping center.

Beyer, K. M., Kaltenbach, A., Szabo, A., Bogar, S., Nieto, F. J., & Malecki, K. M. (2014). Exposure to neighborhood green space and mental health: evidence from the survey of the health of Wisconsin. International journal of environmental research and public health, 11(3), 3453-3472.

The severe elevation change on the existing Mission Valley site should be leveraged for an interesting massing of buildings and experiences. What that site doesn't need is standard "donut" apartment building that ignores the elevation changes of the site and the context of the major entrance point to NC State.

I like having more of a setback with the 5 or 7 stories.

The less you make this like Cameron Village the better. People want space to see the sunrise at sunset, not walls. You may want to save some land to grow food.

Tapered from 3 stories up to 5 stories using a 45° step up plane would be my preference.



Need more thought to the street corridor. On-street parking plus protected bike lanes would actually make this into a street instead of a high-speed in-city road.

Tapered definitely has a more pleasant look. Tapered from 2 to 4 (ie, 2 stories, then 3 stories, then 4 stories) would look even better.

I don't want 5 stories right up next to the road, but neither to we need to keep the space empty.

Unless public transportation is improved, any increase in density will be a problem

More than five stories right on the street is just too much. I would like to see shorter buildings with some green space in between that will allow "site lines" into the much deeper Mission Valley property. Taller, more dense buildings could be considered deeper into the property away from the street. Green space and gaps between buildings along the street will invite pedestrians and vehicular traffic into the property.

not enough parking spaces for additional stories

More than 3 stories next to the street may be appropriate in some places. Building heights should take other factors into consideration that affect pedestrian comfort, such as allowing some sun onto sidewalks in the winter, into consideration.

Whatever you build, access and leaving are key. There needs to be a traffic light that allows cars leaving Mission Valley to easily make a left turn onto Avent Ferry.

My initial preference is for tapered 3 to 7 stories, but the illustration shows that the wider sidewalk with space for outdoor dining is removed in that scenario. I think it's important to have the wider sidewalk instead of feeling right up against a building. I think setback buildings topping out at more than 7 stories would also be appropriate here.

Today we must look to reducing city sprawl and increase the number of people living in the already developed areas. We must respect the natural beauty of the area and reduce sprawl. IT is a very short walk to LAke Raleigh where people can enjoy the nature while clustering growth into a smaller area.

Why should the public have a say in this? If a privately owned business is willing to invest in a 7+ story building...all the power to them. If not...that's fine too. It blows my mind that no one has an issue with limiting a right as basic as property ownership.

By tapering the building from low to high it allows the lowest part of the building to be closest to street to create community feel with lower building and then pick up the density of building as it steps back.

What about parking? There's hardly enough there now for the people who shop there

Hardly enough? I've never seen it even half full.

And we should be discouraging car usage anyway.



# Question 2 - Mission Valley Frontage Comments

Connect Mission Valley to the trails on Centennial Campus in some meaningful way and pull a multi-use path through the site to connect to the Rocky Branch Trail!

The property is large enough to provide a massive amount of development and still present a green frontage. I think the green frontage is necessary because of the width of Advent Ferry Road. Also, this site should see high pedestrian usage. A green area can help define the pedestrian areas.

Green. Look at the guy on the bike in the image, he's pumped.

Create a green thoroughfare through the property for people who walk and bike.

The 20' setback is a little too wide, given the additional 5' sidewalk. The bike lanes on both sides feel a little pinched - 5' is just comfortably wide enough for one bike, but not wide enough to pass, which may be necessary on a hill. Maybe lose the additional sidewalk and require it to be incorporated into the 20' setback? That would give room to increase the bike lane size, and the travel lanes as well if needed.

More dedicated bike lanes will help the city as it grows

Trying to turn left onto Avert Ferry is bad enough without having a building blocking your view

I definitely think the bike lanes should be separated to both sides on Avent Ferry to be safer. Otherwise cars don't look both ways before pulling out into the street, putting bikers in danger.

Why isn't there an option to get rid of one or two lanes of traffic on the street? Too much space is devoted to cars right now.

The experience along this stretch of Avent Ferry Road should be vibrant and full of activity. This study should encourage people to walk (and not drive) everywhere this neighborhood. A zone between the buildings and the street that can accommodate dining, pocket parks, or other amenities is needed to make walking or biking on Avent Ferry Road a pleasant experience.

This area is in desperate need of green space, and walking/biking paths for students. I don't object to the retail space a few stories high, but it needs to be in a setting that is much more pedestrian friendly. There needs to be a safe, pleasant connection between the two campuses.

Cameron Village style is okay for high density utilization

Pathways would encourage students like myself to bike or just take a nice walk

this is a no brainer - we need more pedestrian space, more space for plantings, more space for trees. outside of buildings are public so plan for them to be used by the public. Give us space and peaceful access to and from. We already have had problems downtown with sidewalk seating. Everyone wants sidewalk seating, but we also want space to walk by, space for a stroller, a dog on a leach, 3 people abreast, without knocking into tables and chairs.

Larger space for pedestrians always seems like the way to go, although restaurant seating in this spot seems difficult because it's so steep.

Green space for walk ability. And natural shade.

This option is clearly the best. It includes more trees, provides transportation facilities for all modes and allows more air and light to reach the sidewalk and street level.

Far better for pedestrians as well as our environment. Fits better with WRAL and surrounding area.

With the NC heat, this is an easy one. The idea of connecting walking/bike as well as transit/cars is a great idea, especially near campus. However, that works much better with a little more shade/green

More greenery and designated bike lines is so crucial for Avent Ferry Rd. I would love to to ride my bike safely and be able to connect to other parts of the greenway with more ease. I am very concerned with my safety while riding on Avent Ferry and this would overall make me more likely to use this road for my commute.

street is currently too wide for urban condition. would prefer to see a pedestrian scaled option like the green frontage

When they cut the trees down when they cleared land for the cathedral, we got a raccoon and her babies in our attic. Don't forget the natural habitat.

Mission Valley is not close enough to downtown to have an urban frontage. It should fit in more with Dix Park and Pullen Park, that is, lots of green space.

It would be much better to present a green appearance to the street, rather than tall, close buildings, however the new buildings should be required to have underground parking.

Pedestrian Friendly and Sustainable

Much more inviting and allows for opportunities for activity along the street.

The volume of traffic will make it difficult to execute an urban edge which is more successful in lower speed traffic zones.

This graphic is misleading. The green frontage highlights grade separation for bikes while the urban frontage deemphasizes it. I would support a combination of frontages in this area: green frontage along arterials to create more public space and urban frontage on interior connectors to reign in traffic.

We need green space and sunlight.

A wider paved area in front of businesses is a welcome amenity for dining or things like Girl Scout Cookie sales.

A wider patio area in front of businesses is a useful amenity for dining or things like Girl Scout Cookie sales.



Even in the summer the urban design would feel cold and icy. In the winter it just would be, dangerously so.

Because of the foot and bike traffic in the area I feel the Green option is the only way to go.

Hillsborough Street has an urban frontage, as does most of Downtown...Western Boulevard should be just that, a "Boulevard".

The green option will help this feel connected to the greenways nearby and make it more pleasant for pedestrian traffic

With high pedestrian and bike traffic in this area, developments need to have ways for those people to interact directly with the development in the forms of outdoor dining and green space.

#### Closer

It might be helpful if there were places for a bus to unload without stopping other traffic.

Maybe a pedestrian / bike tunnel under Western blvd although probably too expensive to build.

I think walking and biking is much more enjoyable when done away from other traffic. Looking at a map of Western blvd the pedestrian crossing could be moved to Nazareth (on East side) and Dan Allen (on West side) without adding much distance to walking and improve access from Centennial Campus. Enforcing a no pedestrian crossing area at Western and Avent Ferry might be impossible.

I often have bad ideas so I won't share any more.

set back would help with pedestrian traffic, side walks ect

More space for street level activity the better for retail, increased foot traffic and non-motorized transport.



# Question 3 - Avent Ferry Shopping Center Height Comments

whatever happens, the parking lot needs to be redesigned to allow pedestrians to WALK from the neighborhood to the stores. Currently we have to traverse a horrible parking lot with NO sidealks. The new drugstore on the corner is a perfect example of a huge fail. There is no way to get to the door of the drugstore from the corner crossing area without cutting across the grass area, down a hill and throung the parking lot. the sidewalk from the corner leads down to the driveway into the entire mall parking lot. That is a recent build that the city absolutely failed us on. Do not produce anything like it again. We need sidewalks leading in and out of these shopping centers. also, while there needs to be accessible entrances, there can still be stairs also, which would allow for quicker access for a huge percentage of the population. Have both. The city needs to require developers to build for the people, not skirt the requirements and "just get by."

Nothing wrong with going up high just keep the green area around.

This area is a really bad place to put increased shopping and traffic...this area is busy enough without more things. This is not a good area for shopping and apartments

This shopping center has nothing but a grocery store, commuter parking and tons of potential. I'd like to see trees incorporated into the parking areas. We don't need high rises there.

I love that there are conversations about this! This is such a great corner of Raleigh with a TONS of potential! There is so much going for it already with the beautiful homes, amazing community of people, the lake, the schools, a community garden. I would love to see us bring more positive growth! Honestly, the Gorman/Avent Ferry shopping center is my least favorite thing about this area. On Avent Ferry you can drive by the colorful quaint neighborhoods, pass over the lake, then suddenly you hit the gas station/shopping center and the vibe completely transforms. You drive into that giant parking lot (which sadly, looks and feels slightly old, clunky, sketchy, dirty...bunch of other unfortunate adjectives) that's mostly just people going to Food lion or catching buses. It can be MUCH better utilized. I'd love to see things like more nice bites, café tables, a coffee shop, greenery, little local dive bar/lounge, more grass plots where pop-up markets, etc can happen, one of those "little free libraries." Most importantly - ease of access and walkability to this center. I know this sounds like a reach, but I've seen neighborhoods near Asheville completely transform in this way as Asheville started to grow. And Raleigh as we know, is taking off. It would be so great for it to become a cool nook/hidden gem away from Downtown Raleigh #wishfulthinking haha but I stay hopeful!

Would love to see better restaurants in this shopping center with alfresco dining.

5, we're a city. sprawl is for Cary.

max 3 stories

Please make this area more bike and pedestrian friendly.

Pedestrian access to the shopping center needs to be made much safer, regardless of building height.

complete the greenway and move the bike lanes onto the greenway so that you can ride all the way from Tyron Rd to Centennial Parkway

Need to incentivize the redevelopment by allowing as much height as possible. This center has good interstate proximity.

I support rejuvenating this shopping center; it's surrounded by neighborhoods. By creating a destination with restaurants, a grocery store, living spaces, etc, you can promote walkability, community, and belonging in the Avent Ferry neighborhood. Having said that, I do not think that the shopping center should have buildings more than five stories. Three seems good so that you still have a neighborhood feel. Also, I think we should consider who currently uses the shopping center and for what purpose. How will we make sure we are not alienating certain groups of people by changing the structure of the space?

This area is very residential, with single-family homes across the street...it should maintain a lower profile, to fit it with the surroundings.

3 stories or less, not enough parking to allow for more shopping

Again, where are these people going to park?

No doubt there will be a parking deck built as part of a building like this. There are development standards for these sorts of things. Also, there should be more bicycle traffic in this area as part of the redevelopment with improved bike facilities.

at the bike racks:)

Better to have more shops and apartments and fewer empty parking lots. It'd be nice to have a greater variety of options there.

#### Totally agree w/:

"I love that there are conversations about this! This is such a great corner of Raleigh with a TONS of potential! There is so much going for it already with the beautiful homes, amazing community of people, the lake, the schools, a community garden. I would love to see us bring more positive growth! Honestly, the Gorman/Avent Ferry shopping center is my least favorite thing about this area. On Avent Ferry you can drive by the colorful quaint neighborhoods, pass over the lake, then suddenly you hit the gas station/shopping center and the vibe completely transforms...lt can be MUCH better utilized. I'd love to see things like more nice bites, café tables, a coffee shop, greenery, little local dive bar/lounge, more grass plots where pop-up markets, etc can happen, one of those "little free libraries". Most importantly - ease of access and walkability to this center. I know this sounds like a reach, but I've seen neighborhoods near Asheville completely transform in this way as Asheville started to grow. And Raleigh as we know, is taking off. It would be so great for it to become a cool nook/hidden gem away from Downtown Raleigh" In addition to the abovementioned, the businesses that are there now are failing exponentially. There are more abandoned lots than open business. If you take neighborhoods outside of their downtown in cities like Charleston or Asheville, they all have their charm and allure. This person above is right w/ their commentary; everything about our SW section of Raleigh meets that charm except for the abysmal, straight out of the 80's-early 90s Gorman St sector (I'd say Mission Valley needs more of a face lift and a change of quard for some of the businesses there currently). We want mixed use, we want foot traffic, we want accessibility, we want restaurants; bottle shops; dive bars; green space; pop-up markets; ice cream, preferably non-chain, local business ventures that represent us (I miss you Gorman St.



Pub now a Walgreens: () Outside of Cloos, Ruckus, School Kids, Mission Valley Cinemas, Cup of Joe, and El Cerro, we take our money downtown or to Hillsborough as most everything in our area is not enticing or of quality. The growth in DT Raleigh has to spread out, and I'd like it if our area would be a desirable spot for local business. I no way am I sanctioning more chains like gigi cupcakes shops or Zoe's Kitchen--and sadly I'd take that over what we have there currently.

Keep the building at 3 stories.

the area around this shopping center is residential, my primary concern here is safe access into and out of the shopping center for both pedestrians and cars

Maintain a suburban, neighborhood character and convenience.

The amount of traffic in this area means that a dense (tall) development would be successful because they have plenty of customers living nearby and driving through. I would love to see this center redeveloped so that it is less parking lot and more multi-use that all the people who live nearby can use. Making the center walkable will be key to its success.

Bunch development in one area rather than people being spread out and needing cars to get around. The cars that come with sprawl cause all sorts of issues from pollution to congestion that slows movement. Need to have increased density along Avent Ferry and then reduce cars.

Buildings along Gorman St are oriented differently to the sun so not as much issue with having a "dark alley" in front of tall buildings

I understand the support the idea of tapering because lower building heights immediately adjacent to the sidewalk will allow more air and light to hit the sidewalk and street, creating a more comfortable environment for pedestrians and cyclists. However, considering this shopping center doesn't immediately abut any single family residential neighborhoods, I don't see any reason to limit building heights to 5 stories, especially towards the rear of the property where the elevation is significantly lower than the Avent Ferry Road frontage. This isn't downtown Raleigh but it also is one of the few activity centers in this part of the city. I can easily see 8 story buildings on this property, especially if a grid of streets is implemented across it.

I would support the tapered only with a total redesign of the center. The current design is totally unsafe for pedestrians and resembles a strip mall.

This is a good corridor to add more density, even at this location. Good crossroads of streets and good transit.

Pedestrian access; green edging; good trees; and ideally access to green areas behind (e.g. walking/bike path/greenway) would all be part of the planning process. This requires planners (both private and city) to really work hard to get these to work together. When you are building/developing is the time to put these in. Once the hard structures are in place, it is much harder to change/improve. Thanks for working on this!!

Again, like the high density apartments and the tapered look makes it look more visually appealing and unique.

Please set buildings as far back from the road as possible, to preserve a green, tree-lined corridor to Lake Johnson.

If you go too high, you can't see the trees. Why not just one story? What is wrong with the Avent Ferry corridor now? Why are you changing it?

At the most, 3 stories. The Avent Ferry shopping center is too close to a residential neighborhood for a 5 story development.

I support 5 stories outright; stepbacks seem reasonable on paper, but in practice they result in strange looking buildings. Just call it 5 stories and be done with it.

Please don't create a monolithic cube. A building of varying height and designs would look better.

I think a setback building can handle more than 5 stories in this area. Anything done here will be an improvement, though.

There is no really good EXIT from the Gorman shopping center. The topography creates sight issues from behind the Wal-Green onto Avent Ferry. And the short distance from the intersection with the constant flow of traffic is an issue beside Hardees onto Gorman. The safest EXIT is at the Food Lion end.

Higher will get more mixed use which would be attractive to locals and students. As long as it's not too close to the road tapered 3-5 story buildings would be good



# Question 4 - Avent Ferry Shopping Center Comments

Trees, bike lanes, commuter parking, happiness.

Green fits this area more.

allow for side walks. additional NCSU bus stops

The more attractive the area the better: make it green and walkable and people will (hopefully) come

this is not downtown, it does not need to be "urban". Please keep as much green, as much pedestrian space, as much future programmable space possible.

Keep Gorman Green.

Prefer Green. The site is large enough to allow full development and a wider streetscape.

The picture really doesn't reflect reality. The buildings are about 10-15 vertical feet beneath the roadway.

Green. Then we'll upgrade to Urban when we need space for the Hyperloop #forwardthinking

Green frontage fits into our surrounding neighborhood and encourages more pedestrian access, including use of the greenway.

There are proposals for more development on adjacent conservation areas; I think it is important at this site to preserve and enhance the green.

Privilege pedestrians over cars, always.

Green, for sure...It's close to the greenway path, not too far from Lake Johnson, not an urban-feel neighborhood.

the success depends on the availability of public transit and the use of underground parking

Urban frontage encourages slower vehicular traffic by condensing the feeling of the street for drivers. If we are going to allow green frontage (which will may end up feeling suburban and not at all like a big plaza, as is shown in the diagram), then I would at least expect grade separation for bikes.

Green is usually prettier, but in that section the land slopes down below the road so much that landscaping wouldn't stand out. I think it could look very nice with stylish buildings closer to the road (still with some green in front but not as much) and then multilevel parking could go in behind the buildings on the low lying land.

Think garden not concrete

Again there is a high volume of foot and bike traffic, and even more if it is made safe! Keep it green.

thing about this is that while we are sitting in gridlock, we can look at pretty landscaping. We can not even maintain the existing roads, and yet there is a push to modify the existing roads. Although these roads may not be perfect, they are passable in current condition. The city council still has not been able to get the bridge on Lake Dam road open yet, and the 4th anniversary of it's closing occurred last month and work still has not began. The Trailwood drive bridge was closed for about 3 years. Other good examples are the recent Buck Jones road and Hillsborough street projects. A huge amount of money has been spent on these projects but there was a net loss in the ability of these roads to efficiently move vehicular traffic. We desperately need more traffic lanes and parking in this area, not less. I see nothing in any of the above proposals which will help on either front.

One can never go wrong with more (rather than less) greenery and landscaping...all buildings look better amidst green space.

Green is a no brainer to connect it to existing greenways and make it more attractive to the pedestrians (of which there are plenty in this area)

The street needs to be wider in the section past Gorman St. The addition of the bike lane makes it too narrow.

URBAN

build at street level - there is currently too much of a drop-off

Please stop removing usable traffic lanes to plant bushes. This makes the traffic worse not better. The only good



# Question 5 - Western to Varsity Segment Comments

should also connect with the Greenway

As a commuting bicyclist, my observation is that most other bicyclists in this area would prefer to take the greenway or sidewalk instead of the bike lanes on the road. Most bicyclists (in this area) are college students, not hardcore athletes. Extra wide sidewalks may work better than bike lanes to accommodate the pedestrian and bicycle traffic. Just my 2 cents.

I'm guessing they don't use the existing bike lanes because they don't feel safe being so close to the speeding vehicles. I'm also a bike commuter, and I can't really blame them, especially as, like you said, they aren't hardcore athletes. I'd think protected bike lanes would encourage more cyclists—regardless of ability—to use the bike facilities.

I think these proposals are for bike lanes separated from both the road and the sidewalk.

One way bike lanes please. But keep them free of debris. Raleigh is great at adding bike lanes but fails at maintaining them. A debris filled bicycle lane is more dangerous than no bike lane at all.

Two-way seems like a bad idea given that there is an enormous hill between Western and Centennial Parkway. Cyclists going downhill would be traveling at 30 mph right next to uphill cyclists traveling at 5 mph.

this all depends on whether the bike lane is on the same side of the road from Western allt he way to tryon. We do't need to be crossing back and forth to be in a bike lane, the bike lane also needs to be on the greenway side of the road near trailwood. What is more important is that the bike lane is safe from cars and separated from the sidewalk near bus stops since the people waiting on the bus will surely spill into the bike lane if it is not separate.

A two-way bike path on the southbound side connects much better to the planned tunnel under Western Blvd so that is where it should go. But this will be the main pedestrian and bicycle link between Centennial Campus and Main Campus, so think bigger. 10' is not wide enough - 25' is more like it. It should have a bridge over Avent Ferry and Centennial Parkway and connect to the Centennial Campus Greenway and the Centennial Parkway bike path. Like this: https://goo.gl/t1mGRZ

There should be a two-way bike lane at least from the future pedestrian tunnel under Western Blvd to Centennial Parkway. Otherwise, cyclists traveling north who prefer to cross Western using the tunnel will have to cross Avent Ferry Road at the Western Blvd intersection (crosswalk), then back track south to access the pedestrian tunnel. I don't think many would do that, and would instead either try to cross Avent Ferry Road mid-block, or bypass the tunnel by using the crosswalk across Western—failing to take full advantage of the tunnel's benefits. This would be a big mistake!

When I am biking I like to cross traffic as little as possible, so having a lane on each side following traffic is better to me

safer for bikers to have lanes the copy auto traffic

more European way, showing that it isn't just a add-on. And the best part, it clearly differentiates between pedestrian and bicycle traffic which on the hills of Avent Ferry are moving at drastically different speeds. Speaking as a pedestrian who had been hot by a bike while walking this road.

Both "Varsity to Gorman" options have bike lanes on opposing sides of the road, so what's going to happen to cyclists going northbound when their lane suddenly jumps to the other side of the road? You really can't come up with a solution that has bike lanes on opposing sides throughout?

Two way bikelanes are easier to naviagate and safer.

I would want to see how the intersections and driveways are designed with two-way bike lanes. I'm concerned entering motor traffic drivers would not look in both directions for cyclists.

Northbound side - Ensure a solid connection with the Walnut Creek Greenway, Campus Trails on Centennial, and Rocky Branch Greenway which are all on the NORTHBOUND side.

If you make the frontages "green" in the options above, can't a paved bike path separated from the road be an option? That would be WAY better than bike lanes.

Given our proximity to a college, two way just seems like it's going to invite shenanigans.

One-way bike facilities are known by experts to be safer than two-way and incur lower signal costs. Two-ways should only be done when absolutely necessary for geometry or connections to existing facilities. Ideally a one-way would be 6.5' wide for passing and side by side biking. Plus, this is an opportunity to have the one of best bike facilities in the state - raised one-way cycletrack in a key part of the city.

IMO, this spot is the poster child for the exception regarding connection to an existing (well, future) facility - the planned tunnel under Western Boulevard. Because of this tunnel, all bike traffic in both directions on Avent Ferry should be on the southbound side, at least between Centennial and Western.

One-way bike lane on each side.

Two way bike lanes can often turn into dangerous and confusing, if not complicated ventures. Stick to the intuitive streetscape language

This is a better option as it will be easier for cyclists to reach destinations on the side of the street where the destination is located.

I would also add a wider tripe with a rumble strip separating the bike lanes.

Need to align the bikes with the tunnel under Western.

ideally protected bike lanes. Safety plus some trees could make biking better there; use of greenway as an alternate for biking could work. Again, planning is critical to get it right.

A two way bike lane creates safer and easier intersections for the cyclists. It also clearly prioritizes bike traffic in a



Contraflow bike traffic is confusing to most drivers at best. Also better to keep the bikes climbing the hill toward Western apart from the bikes going much faster down the hill toward Varsity.

Separating bike lanes from both traffic and the sidewalk is definitely the way to go. Adding a median will make it safer to cross the street. When there's a transit stop, the bike lane should divert behind the stop area so that the bus doesn't have to pull into the bike lane to pick up passengers.

I don't see anywhere else that you discuss parking, so I'll comment here. I recently drove to Mission Valley shopping center and was impressed with the many smaller businesses thriving there, as evidenced by the full parking lot. If you subscribe to the theory that increased density is better, as I do, then you know that allocating 200 square feet to park each motor vehicle is an extremely poor financial investment. Parking expense is always paid by someone - from the retail renter, the developer, and everyone who has to navigate through seas of parked cars, whether in another car, as a pedestrian (which everyone becomes when they get out of the parked car), or as a cyclist. Charging motorists to park a vehicle helps raise awareness of other modes of transportation, all of which take less space to accommodate. Bus stops should have premium locations to popular destinations. Bike racks should be plentiful and well designed. And all design features need to focus on the human being as the priority; definitely not on motor vehicles as the sole agent of transportation.

Having some sort of separation between bike lanes is absolutely crucial to making bikers safe. This separation can be in the form of man made barriers (posts, wall, etc) or trees etc.

one-way is safer - cars don't usually look both ways before pulling out into the road.

I agree with this fellow, I will often use the sidewalk instead of a "sharrow lane" and I think an extra bike path is not needed if the sidewalk is big enough, I rarely have negative feed back from pedestrians, they are good at sharing. my observation is that most other bicyclists in this area would prefer to take the greenway or sidewalk instead of the bike lanes on the road. Most bicyclists (in this area) are college students, not hardcore athletes. Extra wide sidewalks may work better than bike lanes to accommodate the pedestrian and bicycle traffic. Just my 2 cents

I fear that a two-way bike lane would be dangerous, as downhill bike traffic would be going pretty fast and vehicles turning left onto Avent Ferry would be expecting any oncoming traffic to be in the traffic lane on the other side of the road, not right in front of them on the bike lane.

I think to one way bike lane could shrink to 4' to make the sidewalk at least 6' wide for pedestrians.

There is a beautiful greenway path from Lake Johnson to Trailwood. Use that for bikers and expand it up through Centennial and Mission Valley and keep them safe there. If you are insistent on them on the road, bikers need to go through safety classes and follow road rules. People who ride motorcycles have defensive driving classes. The motorcyclists who don't take the class are the ones who usually die on the road. Since the bikers use the paths or roads, they should be registered also as cars are. Drivers pay all the fees to maintain the roads through property taxes, registration, gas tax, insurance, ie. Bikers want their pathway cleared and maintained, why shouldn't the city recoup some of the cost from those bikers using them?

Need an option to remove one lane of auto traffic. Too much space devoted to cars.

The thought of biking on a 2-way bike lane is frightening. With one-way lanes on each side, separated from traffic, I might actually ride my bike up Avent Ferry again. As it is now, that's a scary ride.

35

Just makes sense, bike with the traffic, It's safer and more familiar to most motorist.

very busy intersection and the McKimmon turn off has people veering late into the left lane.

One lane on each side will just be used as two-way on each side.

We need Bike lanes and it needs to be safe.

Street is too wide to just have bike path on one side.

2way

Sidewalk

Combined bike paths and sidewalks without partitions would be more practical



# Question 6 - Varsity Drive to Gorman Street Comments

It'll be important to pedestrian safety to have the trees between the sidewalk and the cars. That will naturally encourage more pedestrians to feel safer walking along this busy corridor. I walk this all the time, and I'm constantly on edge because of the proximity to 40mph traffic. The trees will help a LOT.

NCSU need a safe place to make the crossing to and from the bus stops

Yes, extremely good point, and a median would make this problem even worse (no visibility across the whole street and fewer places to cross).

Whatever you do at one end of Avent ferry needs to continue to the end. Don't ahve us crossing the street just to stay in a bike lane.

this all depends on whether the bike lane is on the same side of the road from Western allt he way to tryon. We do't need to be crossing back and forth to be in a bike lane, the bike lane also needs to be on the greenway side of the road near trailwood. What is more important is that the bike lane is safe from cars and separated from the sidewalk near bus stops since the people waiting on the bus will surely spill into the bike lane if it is not separate.

Medians with trees block visibility and make blocks longer, which is bad for pedestrian and bike traffic. OTOH separating bike lane from cars with trees is a great idea!

I think bike lanes should always be physically separated from the road. Drawing a line on the road is not enough.

The more separation and protection for the bikers the better.

Your images are inverse from the survey choices and can lead to unintended choice selections.

Duh. Shade for people who walk and bike.

Bikes lanes are too narrow

Bollards are ugly.

crossings should be where bus stops are located - jay-walking is a constant source of concern

Not a Dan if bollards. More trees!

The greenway crossing at Gorman street should be on a bridge. I prefer a bike lane on one side. Bike lanes on one side should be contingent on Bicycle traffic signals.

Agree with one caveat. Due to topography, the Gorman Street greenway crossing should be in a tunnel, not a bridge.

Trees and bushes in the median make it harder to spot oncoming traffic when you turn left.

Integrate safer pedestrian crossings of Western is imperative. Students often cross midway and stand in the median, only to be hidden by the shrubs and crepe myrtles until they dart out in ad ash to cross traffic.

The trees should be between the bike lane and the road, not the sidewalk and the bike lane. Both the bikes and walkers could use the additional safety and separation from high speed traffic that trees would provide

Either way, we must keep vehicles out of the bike lanes.

This may allow better trees/shade for walkers/bikers; and may enhance safety/visibility for drivers.

The trees in the median should work psychologically to slow the cars more than on the side, though the shade on the bike path would be great in the summer with the other option. Give us both!

This "smaller median/bike lane separated from traffic" plan needs to extend all the way to Athen's Drive. Making a left or right turn onto Avent Ferry from Swift Drive is now very difficult. The reduction of lanes from four lanes to the current two has not made travel easier. Traffic on Avent Ferry is now single file and the capacity of the road has been reduced.

The trees between pedestrians and bikers will also make it less likely that pedestrians will use the bike lane which is also a problem especially around campus. Pedestrian/bikers accidents are also common and can be seriously dangerous.

The answer is always more trees. Not only will this make Western a more visually pleasing corridor, it will make pedestrians and bikers more safe.

Need to do something about all the students jaywalking.

I don't see the need for bollards, but definitely want trees over the sidewalk, this is NC and the sun gets intense in the summer, any shade is desired.

The larger median with trees would get in the way of left turns into the apartments, making it inconvenient for apartment dwellers.

No Medians! These are not needed in this area!



# Question 7 - Gorman Street to Tryon Road Comments

We don't want medians cutting off our left turns and access to schools, playgrounds, businesses, etc on either side of Avent Ferry. We don't want to end up like Holly Springs where everyone has to do a u-turn to get where we need to be.

In general I agree though I think the lowest use areas I would be OK with having to do a U-Turn. I have seen so many close calls with people making turns on Avent Ferry, especially on the portion of Avent Ferry with low visibility when Avent Ferry winds its way between Varsity and Crest Road.

Preserve the woodland feel of the unpaved portion of the path around Lake Johnson, and the wetlands on that side of Avent Ferry that support the ducks and geese. Must have safe crossings on both sides of the lake. Please don't close the bridge at Lake Johnson until Lake Dam is opened up again.

The median seems unnecessary, as it would likely hinder ability to make left turns. As someone who bikes on Avent Ferry Road, it would be nice to have a separated bike lane. Near Lake Johnson there's a lot of pedestrian and bike traffice, so making more room for this rather than having a median would be a better idea to me. Also, clearly marking crosswalks is important so that drivers can see where people may be crossing is important. Lastly, I think maintaining the character of this area is very important -keeping the less urban feel with the wooded areas will keep the character of the area as it is now. Widening roads and removing vegetation will take away aspects that I and many other residents enjoy about living in this area.

Middle of the road crosswalks (not located at intersections) need a pedestrian activated light to stop traffic. In separate incidents I have been yelled at and nearly hit by a driver that went around a car that had stopped for me as I walked through the very well marked crossing at Lake Johnson Mews near Lake Johnson park. Maybe 1 in 10 drivers will acknowledge that crossing and stop for a pedestrian.

Gorman to Tryon includes a large shopping center (or two adjacent ones) plus both Athens High School and Lake Johnson. There need to be left turn lanes at all these places. Actually, right turn lanes also would help. Walking is very popular, and it would not be good to have walking lanes any more narrow than they are now. Lots of bikes too, so bike lanes in both directions.

I agree with another commenter - preserve the woodland feel

Not sure the median is necessary, but love the separated bike lanes on each side of the street and the trees along the sidewalks are great for shade and more pleasant walking

No median. It will be in the way and clutter this section . Preserve Lake Johnson area tree lines.

There are not enough roadway travel lanes to accommodate the planned density presented in your proposals and for future regional growth.

Raised bicycle facilties or physical protection should be put into place if wanting to do it right from the start. If going with flexible bollards, it should be a clear goal to add physical protection by a certain date. There is absolutely no reason to have 12' wide travel lanes.

we have to use Gorman to Tryon to get to past office on Lake Dam road. Before you start tearing up and redoing ANYTHING on Gorman St, PLEASE OPEN LAKE DAM RD!

The woods along Gorman need to be preserved

Love the private crossing over lake Johnson... not sure it's feasible for the traffic volume but would hate to lose that amenity.

Looks good but keep the user experience in mind for the Lake Johnson crossing. If the road is too wide and he road too busy it will really detract from canoeing on the lake or hiking on the trails. I would also like to see speed bumps/tables at the pedestrian crossings to slow down traffic.

Substantial inexpensive improvements could be made to Avent Ferry Rd. immediately without waiting for some future developer to pay.

- 1) As pointed out by other commenters left turns are important to residents. A solid median which prevents current homeowners on Avent Ferry Rd. from turning left into their driveways would reduce their property values and be a taking requiring compensation.
- 2) The present left turn lane is both a convenience and a hazard. Often when making a left turn one finds someone driving along in the opposite direction in the turn lane. It usually happens that the driver is intending to turn left some distance down the road. This could be prevented by breaking up the turn lane with frequent median islands. The islands should be kept small enough and positioned to not impede left turns.
- 3) Walking across Avent Ferry Rd. is hazardous. Crosswalks with signal lights are few and far between as are marked crosswalks of any kind. We need more marked crosswalks with yellow lights that blink when a pedestrian is at the curb to warn drivers. It would be safer if these crosswalks have a median island to enable crossing the two travel lanes in separate pieces.
- 4) There is regular foot traffic down Merrie Rd. to the Avent Ferry shopping center. People are forced to walk the long way around to the automobile access roads to the center. A pedestrian path or stairs from Merrie Rd. to the shopping center would be appreciated and well used.
- 5) Avent Ferry is posted 40 MPH from Tryon Rd. to Lake Johnson and switches to 35 at the bottom of the hill entering the park. It is a difficult speed transition for drivers and results in higher speeds along the park causeway. It would be better if the 35 MPH posting begins at Tryon Rd eliminating the present downhill speed reduction.

The road needs to be repaved and the bridge over lake Johnson needs to be wider(to many people going too fast and crossing the center line) and some of the foliage trimmed to create better visibility around the corner. Finishing the sidewalk down Avent ferry from Tryon to the lake Johnson park entrance would be nice.

Between Athens Dr and I40, dont do to the green what you did to the trees on Buck Jones Rd.

Need more protection for the bicyclists. Should be separated from the street by a curb like the other section of Avent Ferry.

no medians PLEASE!

The entire section from Gorman Street to Lake Johnson should have a left turn lane. There are a ton of private residences with driveways directly accessing the road, and a median just doesn't make sense here.



I think the concern is more "can i cross it?". Otherwise, cool.

I think this area would be better off with more room for cars, not less.

Larger medians with bike lanes, sidewalks and dense plantings. Along with any other traffic calming elements we can think of. Gorman and Tryon roads are currently dangerous speedways.

There are a lot of hills here for bicycles, and navigating the stoplight configuration at Lake Dam/Athens Drive is quite daunting. A protected area for bikes going westbound at Athens Drive would help a lot, and any kind of bike lane will help, especially on the uphill sections where bikes are exposed to a lot more cars per minute than descending. Also the cars won't be stuck behind the bikes slogging up the hills.

#1. Needs a one-way, protected bicycle lane on both sides. #2. Keep the motor vehicle design conducive to no more than 35 m.p.h., Not a signed 35 where most are driving 50+. #3. Do not feed vehicle capacity with more motor vehicle lanes, which also increases speed. #4. Fill in the gaps in sidewalks, both sides of the road. #5. Land uses of residential, in all forms, offices, services, retail, dining, remain appropriate. #6 Look for opportunities to connect arterial multi-use paths (bicycle highways) towards Holly Springs, Cary, Lake Wheeler, Wake Tech.

Lake Johnson is a treasure. Please conserve as much as possible this area. The well-established trees on this area of the road are beautiful, and it would be a shame to cut them down just to replace them with small, new plantings in order to widen the road. A bike lane on this area of the road would be great. The sidewalks are broken on this area as well. Having safe crossing areas for students at Athens Drive is important. Promoting walkability to Lake Johnson from the surrounding neighborhoods would be ideal. Traffic here is not too bad. The turn onto Athens Drive from Avent Ferry heading towards Western is a little funky, but I've never had a problem there.

Hike it.

I like this section as the business of the city starts to transition to the suburban surrounds.

Whatever you do, PLEASE put a crosswalk between the non-pavilion parking lot and the dirt trails across the street.

No Medians! Medians that cut off left turns and impede access to businesses and residences are not acceptable. Improve the roadway from Lake Johnson to the new section just before Tryon Road. The road surface keeps crumbling leading to many potholes.

losing the median to separate bike lanes and sidewalks from the road would be my preference

DON'T MESS WITH LAKE JOHNSON. With all the new housing built off Avent Ferry Rd I foresee pressure to widen the street, which would require widening the bridge, and would greatly harming if not destroying the pond ("Lake" Johnson doesn't meet most peoples' idea of a lake). Any rezoning on the west side of Avent Ferry should be limited to office/professional. NO fast food joints etc, which would greatly harm the residential areas behind.

Bike and pedestrian lanes on both sides, separate from each other

Keep the bike lane on the same side of the street or both sides of the street from Western to Tryon. Otherwise the city is producing a dangerous commuting element for cyclists.

important to have crosswalks where most people actually cross the street - may mean moving bus stops, etc.

Looks nice to me as long as the landscaped medians have cutouts that allow left turns.

Turn lanes over medians, too much "greenery" on the sides. If you have ever traveled this section, there's enough vegetation already. I think with the blind curves around the lake, you'd be stupid to ride a bike, unless there was a concrete barrier between you and the cars

setbacks are way too far

Need turn lanes

This section is more residential, with lots of recreational traffic near the Lake. Wider sidewalks and left turn lanes are more useful here instead of a median and bike lanes. There are low visibility areas at Athens Drive (intersection) and the main entrance to Lake Johnson to be aware of.

Where would the left turn lanes be? How would we access the shopping centers?

Please keep traffic flow moving. A large number of people as upset over the Hillsborough rd upgrades as it has slow traffic way down in rush hours.

another lane would be great for less traffic.

Whatever changes are proposed between Gorman to Tryon; I would NOT want to see Lake Johnson altered from its' current state. I would prefer for Lake Johnson to remain a natural landscape and greenspace for recreation.

no media unless left turns available; more importantly, improved and added crosswalk access for Glenoe and Lake Johnson subdivisions.

Looks good. I like that there are lanes for everyone who uses the corridor.

I generally like this cross-section. You have distinct facilities for each of the modes and you add to the woodland/green feel with the median.

Sidewalks and easy exits are necessary. The green space makes the street nicer looking

Looks fantastic!

Looks fine

I think this cross-section is a drastic improvement upon what exists today.

Important to keep the pedestrian/neighborhood feel so that drivers do not treat this as a speedway. Slowing down vehicles around our schools, parks and libraries is most important.

Generally a nice section. I'd like to see stormwater elements throughout and trees in the central median.

It looks good to me.

This is and should remain as green as possible; safety is important in areas of hills/curves. Walking/biking areas safe from cars and ideally with vegetation/trees would be nice.

This looks fine; the median is a good idea

Nice layout. I hope the landscape will include crepe myrtles

Looks good.

Please do not include a bike lane beyond Pineview Drive.

I like this layout to be honest, and I actually did use to live in the area and I think this set up would have been nice

keep everything green and wooded as you can while building in safe crossings and vehicle turning

Bail on the median for a continuous sidewalk (esp. by ADHS), offset by trees from the road. Also a continuous bike lane would be good.

Speed bump/slow down/calm traffic near LJ by whatever means necessary. Its is very unsafe to cross from Glencastle and Stoneferry.

Really don't like the bollard separation approach... would prefer a curb or other separation.

No median, more and safer biking and walking lanes.

I am in favor of a smaller footprint as the street passes through the Lake Johnson area. The road definitely needs to be more bike and pedestrian friendly, but I would like to preserve the rural "feel" of the road in this area.

Gorman Street to Athens Drive should match the Varsity to Gorman street section (D). Athens Drive to Tryon Road should stay as described above. (E)

Additionally, a traffic signal should be installed at Swift Dr. Currently it is very difficult to make either a left or right turn onto Avent Ferry. A light at Swift will also allow easy access for pedestrians from the neighborhood to walk to the Gorman/Avent Ferry Shopping Center.

Given the coming nine speed bumps on Pineview, additional traffic will switch to Swift Drive for southern access to the Beltline.

Do not do anything until the bridge replacement on Lake Dam Road is complete. It has been closed 5 years and the funding was voted for it 4 years ago.

I like the separation between pedestrians and bikers as well as the physical deterrent between bike lanes and cars.

I think three should be more space between pedestrians and the cars

This is a positive improvement that provides safe access for pedestrians and bikes. The barrier separating the bikes or at least the space in between is needed. Also a plus that the gutter is not included as part of the bike lane.

A center left turn lane at the Avent Ferry Rd./Swift Drive intersection would be more helpful than a center median for drivers who need to cross traffic to make a left turn either onto or out of Swift Drive.

If you do include turn lanes that cut through a center median, PLEASE don't plant vegetation in the median that will prevent drivers from seeing oncoming traffic.

The more green space, the better! I like this.

I don't know why you are taking if from five lanes to two, I would also make a bike path not in the road. The more trees the better (median).

Safer for bicyclists to have curb separation from vehicles - more than just the bollards. Trees in the median.

We need to restore the second traffic lane from Gorman to Athens Dr. Often during rush hour, traffic is backing up behind slowpokes. And in general, traffic is not heavy enough so that a bike lane is that necessary.

If traffic backs up, it is way too heavy for this biker to be comfortable sharing the lane. Much prefer "protected" bike lane over sharrows, standard bike lane, or even a buffered bike lane. Of course, an exclusive paved trail is most desirable, but we're not there yet.

It seems that the bike change in width with each of these road conditions presented throughout the plan. Stick to a standard width - 4'.

I feel very strongly about planted medians not cutting off our turning options for the houses that face Avent Ferry directly. I do think it is important to have safe travel options for bikes, walkers, small kids, etc, as well as a focus on green living, with lots of climate appropriate plants and a focus on a lush aesthetic. If there are ways to incorporate both, that would be wonderful!

This section of Avent Ferry needs wide bike paths on both sides of the street; a center left turn lane and a better separation of the right turn lane onto Athens Drive.

Traffic Circle at Gorman and Avent Ferry! No medians.

My thought.....what about people who own property along Avent Ferry? I don't think it is right to displace them. It is not all rental property.

It would be nice to be able to walk on the sides of the bridge that goes over Lake Johnson.



This section needs more than one lane each way.

Lots of people use the turn lane in this section as a passing lane, which is very dangerous for people trying to turn coming from the other direction. I support the median even if I have to u-turn to get in my own driveway.

It's ok. Just PLEASE remember that we need mid-block pedestrian crossings! Raleigh devotes almost all it's space to cars. Time to put people first!

Looks good, unless the state decides to put an access to the beltline access to avent ferry. (long term threat) which would mean traffic would triple and this won't work at all.

Totally agree that we do not want drivers to have to take a u-turn to get where they want to be.

fine.

Access to turning left and right to points east and west need to be maintained. It's a bit challenging with the change in the speed limit. Safe crossing to trail paths a necessity.

Grade separate bike lanes.

This road section goes very suburban and will have speedy traffic with the traditional layout it seems. Pedestrian amentities in the median and good crosswalks in the right places may ease that, but still Abit concerned with how suddenly un-urban it will transition at Gorman at when the intersection at Tryon will almost certainly ly be built up as much in the future. Of course ethe Lake is in between, but that doesn't mean the road has to continue to feel like your driving in a rural part of the county.

We absolutely do need the bike lanes and pedestrian access to continue all the way to Tryon Rd. Also the transit access. There are many people living on Tryon Rd and just off of it in neighborhoods that will greatly be beneifited by alternative means if accessing the park, high school, and shopping centers.

What if the one side of the road bike lanes actually went the whole length from Tryon to Western? They could connect all the major amenities on the northbound side and even run on a separate bridge across the lake. That would it possible to have a more urban neighborhood road with travel lanes that meet each other rather than a median. This Cross section just gets to wide and loses any sense of being the same road as the one at Western.

No U-Turns they suck.

The present bicycle lanes painted on the street are hazardous, We have experienced near accidents from cars traveling in the bike lane on Gorman. The lanes also travel right by parked cars where a door opening unexpectedly can lead to a cyclist smashing into a steel wall at full speed. I knew a girl who got permanent brain damage from a surprise car door opening.

Medians with lots of turn cuts. Keep pedestrians safe from the bicycles

i agree with no medians, but need bike lanes.

No need for bike lanes beyond Gorman

Whatever will make traffic flow smoothly.

Are there plans to widen the bridge that goes over Lake Johnson? If not, you can't pull this off.

In its present form, the section feels like a highway. It could be improved by making it more pedestrian- and bikefriendly, and adding a grassy/treed median.

Avent Ferry Road over the lake needs new pavement asap.

Before you further develop Gorman, don't we need to see the remainder of Tryon widened (from Lake Wheeler to South Saunders)? Will geologic studies restrict building heights in such a wet area? I worry about people walking on the side of the road along this stretch of Gorman; it is awfully dark at night with no street lights.

Keep two lanes for cars to avoid adding congestion and wait time at Avent Ferry Rd. stop light.

include plenty of crosswalks, and turn lanes cutting through that central median. in the sections where there are no crosswalks or turn lanes, include small ornamental tree plantings

could use some taller plantings in the central median

looks good - we like the medians, they work great

Tryon would need better biking lanes to use these lanes to the fullest

The more sidewalks, bus lanes, and bike lanes, the better.

Love it!

Typical of new urbanism principles

The addition of the median strip and separated bike lanes is an improvement. The road is very wide right now from Merrie to Athens with little benefit. It is still never-ending to ride a bike in this area.

It's very important to strengthen bike and ped access to Lake Johnson, especially considering all the homes along this segment. But as long as bikes and pedestrians can travel safely between Tryon and Gorman, it's probably not necessary to put bike lanes along the entire segment -- people can use the Lake Johnson paths instead.

Love it! I will walk this all the time!

Improve the multi-use path through Lake Johnson Park from Lake Dam Rd to Avent Ferry, then use a sidepath along Avent Ferry to connect to Tryon Rd. Create a rear gateway to the Gorman Street Shopping Center from the multi-use path across Walnut Creek.

Anything that can be done should be done to make the greenway crossing safer...slowing traffic comes to mind first...



make blocks smaller -- more opportunities for crossing the road, add greenway if possible.

Need turn lanes for cars at some intersections.

I like it. Again, bike lanes n Ed maintaining.

leave the existing right=of=way with heavy woods (along the Greenway) on either side (undeveloped)

Wider sidewalks and better protection than bollards between bicycles and cars

I prefer this street section.

The vegetated median is good, but should have left turn lanes at intersections.

Narrow the outside tree section to have enough for just one tree between the sidewalk and the buildings.

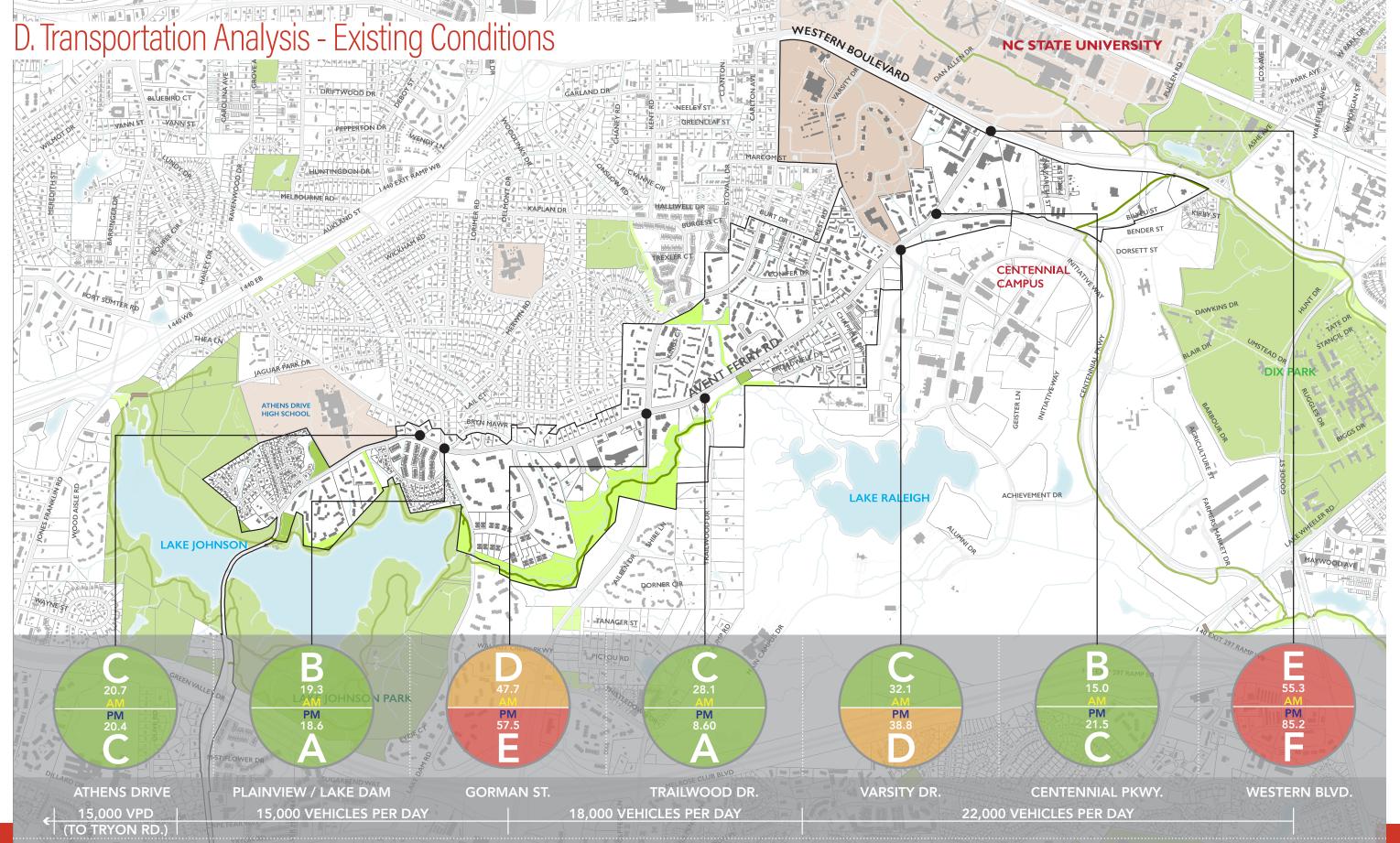
Prefer re-development that retains the character of Avent West community and our diverse neighborhood.

Pedestrian safety from Crest Rd down to Trailwood is a huge issue. Need a stop light and more crosswalks.

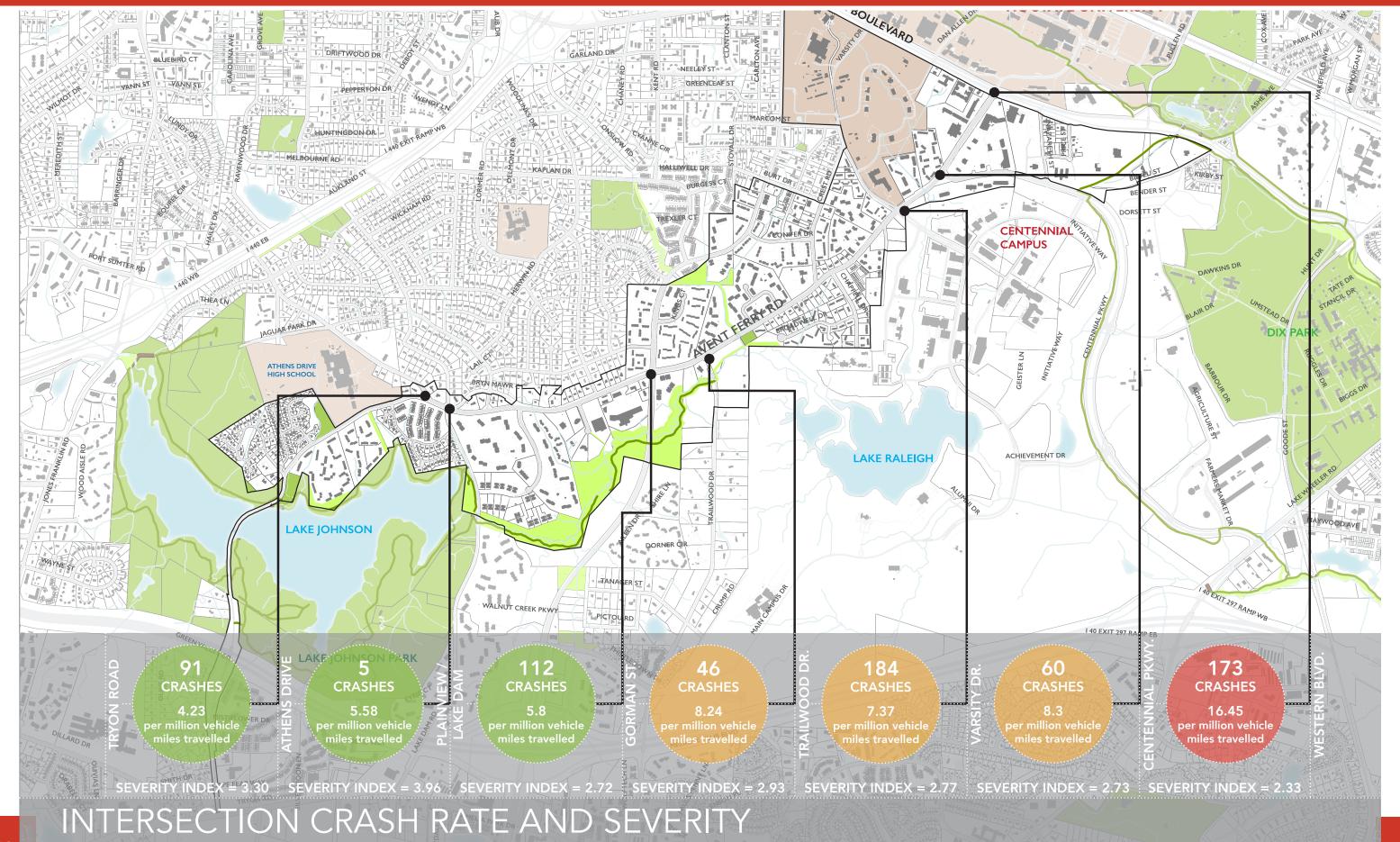
Just let the natural green space come in farther eliminate the sidewalks/bike lanes that aren't used there very much.

No medians. Almost the entire length of Avent Ferry is two lanes given the bus traffic takes up the left lanes. I traveled AF for 35 years. I have not seen much bike traffic from Gorman to Arhens drive. Would like to see a study of actual use. Not just we think this is taking place. Need more marked crossings. I've almost hit a couple of people darting across the road. Almost been hit numerous times by cars trying to get around buses. Balancing pedestrians, bicycles, and free flowing traffic along with trees and medians with limited space for the entire corridor is asking a lot.











52

# E. Transportation Level of Service Analysis

52		Level of Service without Improvements	ithout In	nproverr	ents					
		Avent Ferry Corridor Study Results	ridor S	tudy R	esults					
				201	14			20	17	
Intersection		Approach	AM	Л	PM	$\Lambda$	AM	M	PM	M
THE SECTION		Approaci	Delay (sec)	SOT	Delay (sec)	LOS	Delay (sec)	SOT	Delay (sec)	SOT
		Intersection Average	50.6	D	71.2	E	55.3	E	85.2	F
Western Blyd @ Avent Ferry Rd		EB - Western Blvd	40.9	D	54.4	D	42.5	D	56.9	Ε
Morrill Dr	Signalized	WB - Western Blvd	49.4	D	57.7	E	51.1	D	58.2	日
/ MOHIII DI.		NB - Avent Ferry Rd	61.9	E	97.6	Ч	74.7	E	127.0	ч
		SB - Morrill Dr	6.99	Е	117.9	F	65.2	E	166.0	F
		Intersection Average	14.8	В	20.2	С	15.1	В	21.0	С
Avent Ferry Rd @ Champion Ct		EB - Champion Ct	58.1	Е	58.4	E	58.5	Ε	59.0	Ε
Aventienty in a Champion Ct.	Signalized	WB - Centennial Pkwy	52.4	D	47.5	D	52.7	D	46.8	D
/ Centennial Frwy		NB - Avent Ferry Rd	5.5	A	11.4	В	5.8	A	12.9	В
		SB - Avent Ferry Rd	6.4	A	11.1	В	6.7	A	12.2	В
		Intersection Average	31.4	С	35.8	D	34.0	С	38.4	D
		EB - Varsity Dr	56.3	E	62.2	E	60.2	Ε	9.89	Ε
Avent Ferry Rd. @ Varsity Dr.	Signalized	WB - Varsity Dr	24.2	С	32.6	C	24.5	C	34.2	C
		NB - Avent Ferry Rd	24.3	C	38.6	D	25.6	C	40.5	D
		SB - Avent Ferry Rd	27.5	C	28.8	C	32.5	С	32.1	C
		Intersection Average	27.3	С	8.0	$\mathbf{A}$	28.1	С	8.5	A
Awant Farm Bd @ Trailwood Dr	Cimalized	EB - Avent Ferry Rd	30.0	С	8.3	A	30.5	C	9.5	Α
Aveilt l'eny ind. & manwood Di.	Signanzeu	WB - Avent Ferry Rd	6.0	A	2.0	A	6.0	A	2.5	A
		NB - Trailwood Dr	40.6	D	48.8	D	42.6	D	46.9	D
		Intersection Average	44.9	D	49.7	D	48.1	D	57.8	E
		EB - Avent Ferry Rd	39.6	D	46.5	D	43.4	D	47.9	D
Avent Ferry Rd. @ Gorman St.	Signalized	WB - Avent Ferry Rd	52.4	D	41.6	D	58.8	E	46.9	D
		NB - Gorman St	46.0	D	51.8	D	48.0	D	53.3	О
		SB - Gorman St	46.4	D	63.0	E	47.9	D	84.5	Н
		Intersection Average	18.8	В	17.6	В	19.3	В	18.6	В
Avent Ferry Rd @ Lake Dam Rd		EB - Avent Ferry Rd	9.5	A	9.6	А	10.0	В	6.6	Α
/ Dinaviaw Dr	Signalized	WB - Avent Ferry Rd	15.0	В	15.2	В	15.9	В	15.9	В
I IIICAICA DI:		NB - Lake Dam Rd	42.0	D	41.9	D	42.3	D	45.5	D
		SB - Pineview Dr	25.3	C	31.6	C	24.8	C	32.1	C
		LS	19.9	В	19.5	В	20.7	C	20.4	С
Avent Ferry Rd @ Athens Dr	Signalized	1	19.4	В	16.6	В	21.1	C	18.1	В
iventions are a running or:	Digitalized	WB - Avent Ferry Rd	22.0	C	20.1	C	22.8	C	21.2	C
		SB - Athens Dr	18.1	В	20.6	C	17.4	В	20.7	C

Level of Service with Improvements

		A	vent Fe	erry Co	Avent Ferry Corridor Study Results	tudy K	esults							
				Existing	g (2014)			Curren	t (2017)		Wit	h Improve	ements (20	17)
Intersecution		Anneogob	A	M	PM	I	A	M	ld	PM	AM	M	PM	M
		Approacii	Delay	SOT	Delay (sec)	SOT	Delay (sec)	SOT	Delay (sec)	SOT	Delay	SOT	Delay (sec)	SOT
		Intersection Average	50.6	2	71.2	Œ	55.3	Ħ	85.2	'n	52.0	_	77.4	Ā
()		EB - Western Blvd	40.9	Q	54.4	D	42.5	D	56.9	ш	40.8	D	62.0	ш
western Blvd (a) Avent Ferry Kd. /	Signalized	WB - Western Blvd	49.4	D	57.7	田	51.1	D	58.2	Э	46.7	D	9.79	Ε
Morrill Dr.	)	NB - Avent Ferry Rd	61.9	Ε	97.6	ഥ	74.7	Ε	127.0	ഥ	72.7	Е	101.6	Н
		SB - Morrill Dr	6.99	Ε	117.9	Н	65.2	Е	166.0	F	8.69	Е	105.9	F
		Intersection Average	14.8	В	20.2	Э	15.1	В	21.0	Э	13.8	В	21.0	C
A vigat Form, Dd @ Chomaign Ct		EB - Champion Ct	58.1	Ш	58.4	Э	58.5	Ξ	59.0	Э	58.5	Ξ	59.0	Ξ
Avent Felly Ru. (# Champion Ct.	Signalized	WB - Centennial Pkwy	52.4	D	47.5	D	52.7	D	46.8	D	54.6	D	51.8	D
/ Centennial Pkwy	)	NB - Avent Ferry Rd	5.5	Α	11.4	В	5.8	A	12.9	В	2.7	Ą	11.1	В
		SB - Avent Ferry Rd	6.4	Α	11.1	В	6.7	A	12.2	В	6.7	Α	10.9	В
		Intersection Average	31.4	Э	35.8	D	34.0	Э	38.4	D	33.9	О	37.4	D
		EB - Varsity Dr	56.3	Ш	62.2	田	60.2	Ξ	9.89	Э	57.3	Ξ	68.1	Ξ
Avent Ferry Rd. @ Varsity Dr.	Signalized	WB - Varsity Dr	24.2	C	32.6	C	24.5	C	34.2	C	23.9	C	36.0	D
	,	NB - Avent Ferry Rd	24.3	C	38.6	D	25.6	С	40.5	D	27.8	С	38.9	D
		SB - Avent Ferry Rd	27.5	С	28.8	С	32.5	С	32.1	С	29.4	С	28.4	С
		Intersection Average	27.3	C	8.0	A	28.1	C	8.5	A	29.7	С	8.9	Α
Awant Earn, Dd @ Trailwood Dr		EB - Avent Ferry Rd	30.0	C	8.3	Α	30.5	C	9.5	Α	32.0	С	10.0	Α
Aveilt relly nd. @ Hallwood DI.	Signalized	WB - Avent Ferry Rd	6.0	Α	2.0	Α	6.0	A	2.5	Α	8.0	V	2.9	A
		NB - Trailwood Dr	40.6	D	48.8	D	42.6	D	46.9	D	45.6	D	46.7	D
		Intersection Average	44.9	D	49.7	D	48.1	D	87.8	E	45.9	D	48.2	D
		EB - Avent Ferry Rd	39.6	D	46.5	D	43.4	D	47.9	D	42.4	D	50.1	D
Avent Ferry Rd. @ Gorman St.	Signalized	WB - Avent Ferry Rd	52.4	D	41.6	D	58.8	Е	46.9	D	57.6	Е	40.9	D
		NB - Gorman St	46.0	D	51.8	D	48.0	D	53.3	D	44.7	D	44.3	D
		SB - Gorman St	46.4	D	63.0	Е	47.9	D	84.5	F	45.1	D	60.7	E
		Intersection Average	18.8	В	17.6	В	19.3	В	18.6	В	19.3	В	18.2	В
Awant Form Dd @ Lake Dam Dd		EB - Avent Ferry Rd	9.5	A	9.6	A	10.0	В	6.6	Α	10.0	В	10.3	В
Avenit renty Nat. & Lake Dain Nat.	Signalized	WB - Avent Ferry Rd	15.0	В	15.2	В	15.9	В	15.9	В	15.9	В	15.6	В
/ Fineview Di.		NB - Lake Dam Rd	42.0	D	41.9	D	42.3	D	45.5	D	42.3	D	43.2	D
		SB - Pineview Dr	25.3	C	31.6	C	24.8	C	32.1	C	24.8	C	31.3	C
		Intersection Average	19.9	В	19.5	В	20.7	Э	20.4	О	20.7	О	20.3	Э
Avent Ferry Rd @ Athens Dr	Signalized	EB - Avent Ferry Rd	19.4	В	9.91	В	21.1	С	18.1	В	21.1	С	17.3	В
Avent roug iva. & Autons Dr.	Signanteed	WB - Avent Ferry Rd	22.0	Э	20.1	C	22.8	C	21.2	С	22.8	С	21.1	C



# F. Centennial Parkway Realignment Memo

# AVENT FERRY CORRIDOR STUDY: CENTENNIAL PARKWAY REALIGNMENT AND INTERCHANGE

In response to stakeholder input, the City of Raleigh asked the project team to examine the impact of a potential realignment of Centennial Parkway on Avent Ferry Road traffic. Using the basic realignment presented to the project team, a series of assumptions was designed to test the Level of Service (LOS) and intersection movements and delays.

The proposed realignment would divert the existing Centennial Parkway through the proposed redeveloped Mission Valley Shopping Center (see Appendix A). Centennial Parkway crosses Avent Ferry Road and connects to Fraternity Court on the west side of the signalized intersection. The current signalized intersection at Centennial Parkway/Champion Court and Avent Ferry Road would eliminate left turns from Centennial Parkway onto Avent Ferry Road. Centennial Parkway would be converted to a stop-controlled and left-in only intersection. The former Centennial Parkway and Champion Court intersection will be a right-out only intersection.

This analysis is conceptual and volumes for the new links were coded in Synchro based on the assumptions noted below. If the Centennial Parkway realignment were to move forward, a more thorough volume development and traffic forecast would need to be performed. Additionally, changes to land use and the design of the Mission Valley Shopping Center would need to be considered in any future traffic analysis.

Below is a list of the assumptions made by the project team. The proposed realignment is conceptual and required many assumptions to conduct basic traffic analysis.

#### **ASSUMPTIONS:**

- 1. The existing intersection at Avent Ferry Road and Centennial Parkway/Champion Court converted to a left-in only intersection with all the left turns restricted out of Centennial Parkway and Champion Court.
- 2. The old link for Centennial Parkway is converted to a 2-lane (or possibly 3-lane depending on driveways) roadway with one lane in each direction, between Avent Ferry Road and the new realigned Centennial Parkway.
- 3. The realigned Centennial Parkway is a 4-lane segment with 2 lanes in each direction. The old Centennial Parkway link will be 2 lanes with a stop controlled approach at the intersection.
- 4. The new signalized intersection for Centennial Parkway and Avent Ferry Road connects to Fraternity Court and is coded as a 4-phased signal in synchro, with protected left turn phasing for the southbound left turn from Avent Ferry Road and the westbound left turn from new Centennial Parkway.
- 5. A 300 foot storage length provided for the westbound left turn from the new Centennial Parkway approach and a 200 foot eastbound storage lane is assumed for the approach from the 2-lane connector road to Fraternity Court.
- 6. The Centennial Parkway and Avent Ferry Road intersection is realigned to follow the existing driveway for Mission Valley Shopping Center.
- 7. The current number of left turn movements at the intersection of Centennial Parkway/Champion Court and Avent Ferry Road is assumed to be the volume of turning movements at the new intersection between Avent Ferry Road and new Centennial Parkway.



- 8. The current volume of right turning movements into Centennial Parkway is assumed at the old Centennial Parkway link with the exception of 25 vehicles that were redirected to the new Centennial Parkway intersection.
- 9. The current volume of right turning movements into old Centennial Parkway is assumed to remain the same with the exception of the additional 25 vehicles redirected in assumption eight.

#### FINDINGS:

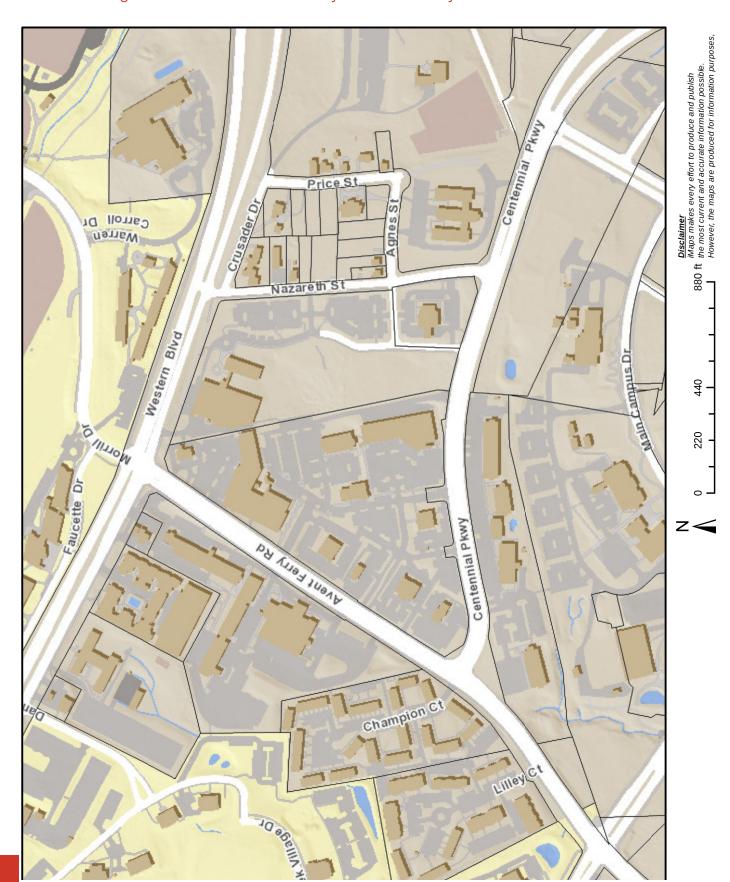
- 1. During the AM Peak hour, the new Centennial Parkway intersection performs at a LOS C with an intersection delay of 26 seconds. The southbound left from Avent Ferry Road has a movement delay of 53 seconds and a 95<sup>th</sup> percentile queue length of 93 feet.
- 2. During the PM Peak hour, the new Centennial Parkway intersection performs at a LOS D with an intersection delay of 37.8 seconds. The southbound left from Avent Ferry Road has a movement delay of 63 seconds and a 95<sup>th</sup> percentile queue length of 168 feet.
- 3. During the AM Peak hour, the Western Boulevard intersection performs at a LOS D with an intersection delay of 54.2 seconds. The northbound left at Western Boulevard has a movement delay of 46 seconds and a 95<sup>th</sup> percentile queue length of 242 feet.
- 4. During the PM Peak hour, the Western Boulevard intersection performs at a LOS E with an intersection delay of 68.8 seconds. The northbound left at Western Boulevard has a delay of 65 seconds and a 95<sup>th</sup> percentile queue length of 357 feet.
- 5. The northbound through movement on Avent Ferry Road at Western Boulevard operates at a LOS E with a movement delay of 68.4 seconds during the AM Peak hour and an LOS F with a delay of 99.9 seconds during the PM Peak hour. The queue length for the northbound through movement at Western Boulevard is 601 feet for AM Peak hour and 607 feet for PM Peak hour.
- 6. The westbound left from new Centennial Parkway operates at a LOS F. The new road alignment would require two left-turn lanes (since it exceeds the City standard of 300 turning movements per left turn lane). The intersection has a movement delay of 92.2 seconds and 95<sup>th</sup> percentile queue length of 222 feet.
- 7. The old intersection of Centennial Parkway and Avent Ferry Road performs at a LOS B during AM Peak and LOS B during PM Peak

#### **CONCLUSIONS:**

- 1. Realignment of Centennial Parkway to Mission Valley Shopping Center will cause queuing and storage delays at the Avent Ferry Road/Centennial Parkway intersection and the Avent Ferry/Western Boulevard. Specifically, there would be stacking in the northbound left-turn lane at the Avent Ferry Road/Western Boulevard intersection and the southbound left-turn at the Avent Ferry Road/New Centennial Parkway intersection.
- 2. The distance between the stop bars on northbound Western Boulevard and southbound new Centennial Parkway will be approximately 600 feet which could be insufficient storage capacity for the left turns on Avent Ferry Road causing stacking and delays from Western Boulevard and Varsity Road during PM peak period.
- 3. A potential alignment that could reduce the queuing problem is to extend the proposed alignment from Fraternity Court to Varsity Drive to create a parallel route to Western Boulevard that would allow traffic to enter Western Boulevard from Varsity Road.



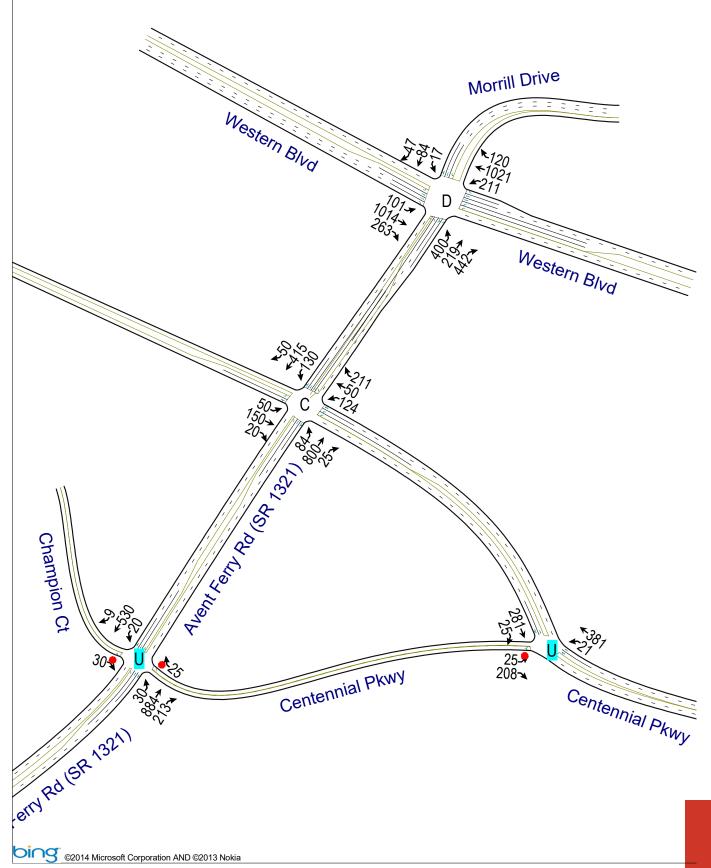
# Potential Realignment of Centennial Parkway and Avent Ferry Intersection



# Avent Ferry Corridor - Centennial Realignment Intersection Traffic Volumes & Level of Service

**Avent Ferry Corridor Study - Centennial Realigment** 

Intersection Traffic Volumes



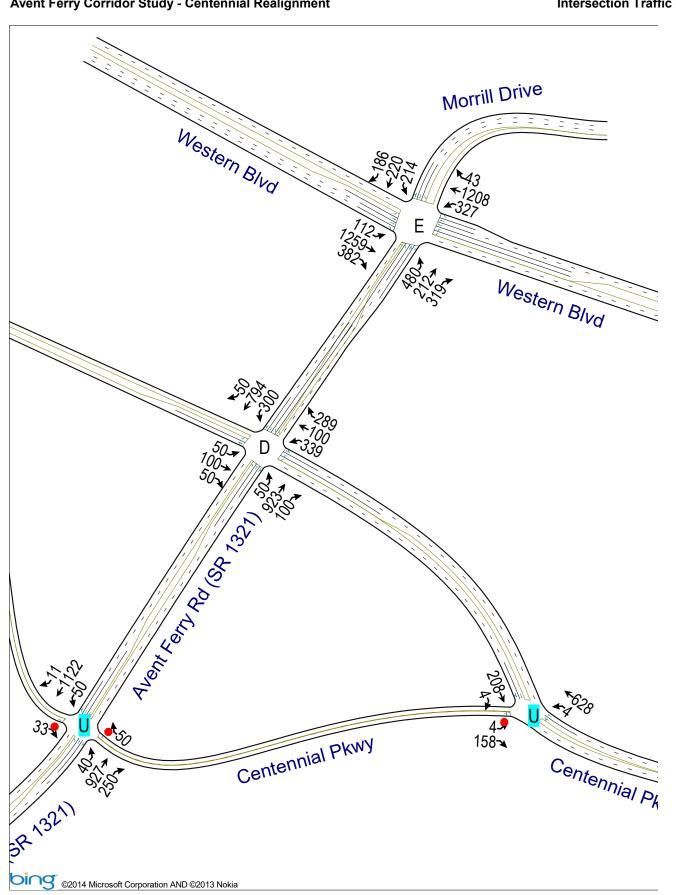
# Avent Ferry Corridor - Centennial Realignment Intersection & Movement Delays

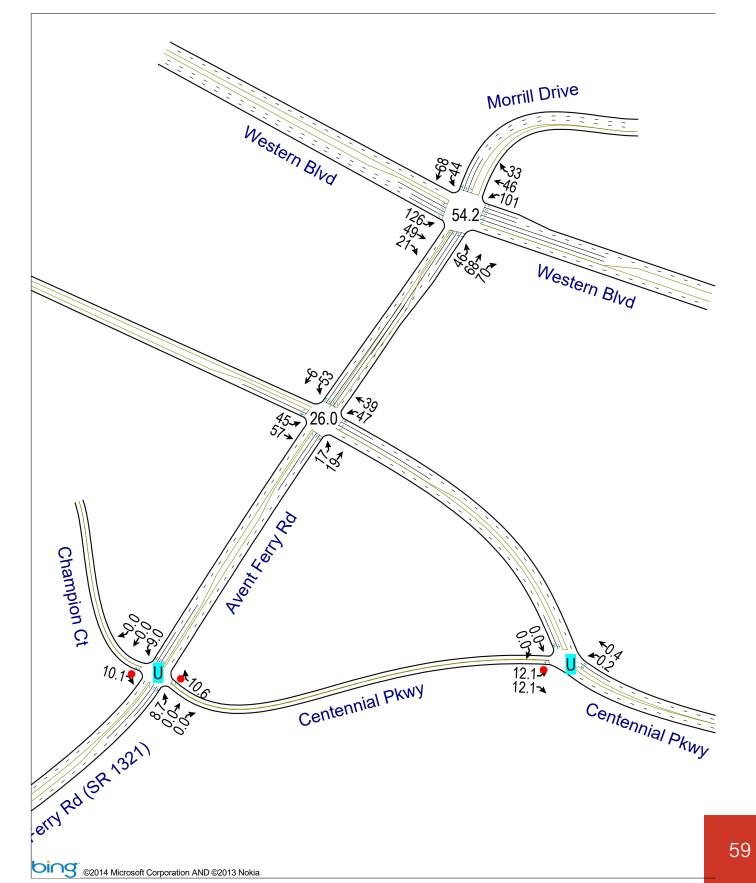
#### **Avent Ferry Corridor Study - Centennial Realignment**

#### **Intersection Traffic Volumes**

#### **Avent Ferry Corridor Study - Centennial Realigment**

**Intersection and Movement Delay** 







#### **Avent Ferry Corridor Study - Centennial Realignment**

#### **Intersection and Movement Delay**

